

Major Public Works Project Will Shape Communities of the Future

By Dean Niemeyer and Brian Wamsley April 2, 2010

"Communities of the Future" is the Metropolitan Sewer District (MSD)'s vision for the implementation of one of the largest public works projects in the history of our metropolitan region that seeks to solve the long-term combined sewer overflow problem (CSO)—14 billion gallons of raw sewage, mixed with storm water, that overflow from our sewers into local streams and rivers annually.

As mandated by the Federal Consent Decree, MSD is committed to rebuilding our sewer infrastructure and to utilize new ways of thinking and new engineering solutions that are more efficient and have lower long-term costs. These solutions include a mix of both "grey" and "green" infrastructure. Grey infrastructure refers to new sewers pipelines, upgraded treatment plants and enhanced high-rate treatment facilities. Green infrastructure treats the problem at the source, by keeping storm water out of combined sewers using pervious pavement, green roofs, bioretention basins and by enhancing nature's built-in capacity to handle storm water by restoring habitats, reforestation and "daylighting" urban streams (daylighting streams means to redirect a buried stream into an above-ground channel).

"Communities of the Future" recognizes the ability of green infrastructure to create better places to live because it connects people to nature, improves the environment, increases biodiversity, and creates economic development by freeing up sewer credits. MSD's goal is to leverage the experience, tools and resources of other community stakeholders engaged in areas such as land use, land conservation, better site design, economic development and community facilities improvement and focus them towards a common vision. By doing so, "Communities of the Future" is leading the way to maximize the sustainable development benefits of the infrastructure improvements by integrating social, economic and environmental elements.

To implement "Communities of the Future," MSD is employing a fourstep process: 1. Compile and analyze existing data and information, 2. Identify opportunities and constraints to sustainable infrastructure solutions, 3. Develop solutions and an action plan and 4. Evaluate feasibility and implement the vision.

Since May of 2009, Hamilton County Planning and Development (HCPD) staff has been working on a contract to provide community analysis and outreach for the MSD.

Planning staff have been instrumental in data compilation and analysis with the development of the South Fairmount-CSO#5 Urban Audit (September 2009). The Urban Audit included a "boots on the ground"

physical inventory with photographs of all buildings and evaluations of all building structural conditions in the study area, CAGIS parcel data, and Auditor data for all the properties. Staff also completed the Lower Mill Creek Course Evaluation Planning Background Report (January 2010) which was an investigation of recent planning efforts, socioeconomic trends, and historical, community and natural resources in the sub-basins of the Lower Mill Creek.

Another component of this massive infrastructure improvement project is community education. "Early Success Projects" are being designed to educate the community about "green" stormwater management alternatives that will result in attractive public amenities such as rain gardens and bio-swales for the enjoyment of the community. By utilizing this approach of "show and tell," communities will be better prepared to understand the possibilities and incorporate them in their built environment and take full advantage of larger green infrastructure projects in the future. Planning Staff has applied for an EPA Surface Water Improvement Funds Grant, which if successful, will partially offset the costs of one of the first Early Success Projects.

Planning Staff helped to develop and convene the Communities of the Future Advisory Committee (CFAC). The CFAC will be an essential resource for MSD in its implementation of the metropolitan sewer improvement project. In forming the CFAC, MSD sought expertise and counsel from appropriate stakeholders in our community whose missions incorporate social equity, economic development and environmental conservation. The CFAC will review and advise upon the Communities of the Future planning process and recommended solutions for the metropolitan sewer improvement project.